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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
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EXAMINER

EHICHIOYA, FRED I

ART UNIT	PAPER NUMBER
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2172

DATE MAILED: 10/23/2003

7

Please find below and/or attached an Office communication concerning this application or proceeding.

Office Action Summary

Application No.

09/698,894

Applicant(s)

CODEN ET AL.

Examiner

Fred I. Ehichioya

Art Unit

2172

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If the period for reply specified above is less than thirty (30) days, a reply within the statutory minimum of thirty (30) days will be considered timely.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133).
- Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

- 1) ☒ Responsive to communication(s) filed on 07 August 2003.
- 2a) ☐ This action is FINAL. 2b) ☒ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

- 4) ☒ Claim(s) 1 - 33 is/are pending in the application.
- 4a) Of the above claim(s) _____ is/are withdrawn from consideration.
- 5) ☐ Claim(s) _____ is/are allowed.
- 6) ☒ Claim(s) 1 - 33 is/are rejected.
- 7) ☐ Claim(s) _____ is/are objected to.
- 8) ☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☐ The drawing(s) filed on _____ is/are: a) ☐ accepted or b) ☐ objected to by the Examiner.
- Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
- 11) ☐ The proposed drawing correction filed on _____ is: a) ☐ approved b) ☐ disapproved by the Examiner.
- If approved, corrected drawings are required in reply to this Office action.
- 12) ☐ The oath or declaration is objected to by the Examiner.

Priority under 35 U.S.C. §§ 119 and 120

- 13) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☐ All b) ☐ Some * c) ☐ None of:
1. ☐ Certified copies of the priority documents have been received.
2. ☐ Certified copies of the priority documents have been received in Application No. _____.
3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).
- * See the attached detailed Office action for a list of the certified copies not received.
- 14) ☐ Acknowledgment is made of a claim for domestic priority under 35 U.S.C. § 119(e) (to a provisional application).
- a) ☐ The translation of the foreign language provisional application has been received.
- 15) ☐ Acknowledgment is made of a claim for domestic priority under 35 U.S.C. §§ 120 and/or 121.

Attachment(s)

- 1) ☒ Notice of References Cited (PTO-892)
- 2) ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)
- 3) ☐ Information Disclosure Statement(s) (PTO-1449) Paper No(s) _____
- 4) ☐ Interview Summary (PTO-413) Paper No(s) _____
- 5) ☐ Notice of Informal Patent Application (PTO-152)
- 6) ☐ Other: _____

DETAILED ACTION

1. Response to communications filed on August 7, 2003.
2. Claims 1 – 33 are pending in this office action.
3. Applicants amend claims 1, 18 and 24
4. Applicant's arguments with respect to claims 1 - 33 have been considered but are moot in view of the new ground(s) of rejection.

Allowable Subject Matter

5. Claims 11, 19 and 23 are objected to as being dependent upon a rejected base claim, but would be allowable if rewritten in independent form including all of the limitations of the base claim and any intervening claims.

The followings is a statement of reasons for the indication of allowable subject matter: The prior art of record fails to teach and/or suggest "the step of examining the information stream further . . . , identifying a second set of documents that correspond to words found in the text; scoring the returned documents based on a plurality of criteria and ranking the documents based on their scores".

Claim Rejections - 35 USC § 103

6. The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

This application currently names joint inventors. In considering patentability of the claims under 35 U.S.C. 103(a), the examiner presumes that the subject matter of the various claims was commonly owned at the time any inventions covered therein were made absent any evidence to the contrary. Applicant is advised of the obligation under 37 CFR 1.56 to point out the inventor and invention dates of each claim that was not commonly owned at the time a later invention was made in order for the examiner to consider the applicability of 35 U.S.C. 103(c) and potential 35 U.S.C. 102(e), (f) or (g) prior art under 35 U.S.C. 103(a).

7. Claims 1, 2, 3, 5, 6, 9, 18, 24, 31 and 33 are rejected under 35 U.S.C. 103(a) as being unpatentable over U.S. Patent 5,500,920 issued to Julian M. Kupiec (hereinafter "Kupiec") in view U.S. Patent 6,581,054 issued to Steven W. Bogrett (hereinafter "Bogrett").

Regarding claims 1, 18, 24 and 33, Kupiec teaches a method for providing collateral information for inclusion with an information stream, comprising steps of:

examining the information stream to recognize a presence of events that occur in the information stream (see column 14, lines 15 – 20; “Kupiec discloses the phone sequence as information stream”).

Kupiec does not explicitly teach automatically generating database queries from recognized events.

analyzing results of said database queries so as to rank and select said results to be inserted into the information stream as information that is collateral to said organized events.

Bogrett teaches automatically generating database queries from recognized events (see column 11, lines 50 – 51).

analyzing results of said database queries so as to rank and select said results to be inserted into the information stream as information that is collateral to said organized events (see column 7, lines 43 – 64).

It would have been obvious to one of ordinary skill in the art at the time the invention was made to combine teaching of Bogrett with the teaching of Kupiec wherein information that is collateral to said organized events are selected from the query results. Thus the selected information is analyzed and used to interpret users’ concerns.

Regarding claim 2, Kupiec teaches the step of analyzing comprises a step of ranking the database query results based on a plurality of criteria (see Fig.7 step FL).

Regarding claim 3, Kupiec teaches the plurality of criteria comprise a score derived from a free text search of the database using text that is automatically extracted from the information stream, on a number of named entities appearing in the text and in the database query results, and on a taxonomy path score, where the taxonomy path score represents an amount of relatedness between a taxonomy-related information element found in the text and a predetermined taxonomy tree (see column 5, lines 1 – 30).

Regarding claim 5, Bogrett teaches the step of examining comprises a step of automatically extracting text from the information stream (see column 7, lines 41 - 49).

Regarding claim 6, Kupiec teaches segmenting the text into sentences (see column 24, lines 51 – 55); and

operating on the sentences to identify topics that correspond to predetermined topic taxonomies, wherein the step of automatically generating database queries operates on identified topics (see column 16, lines 30 – 36).

Regarding claim 9, Kupiec teaches the step of automatically extracting text from the information stream comprises a step of operating a character recognition system (see column 24, lines 32 – 35).

Regarding claim 31, Bogrett teaches the database queries are automatically generated based on information corresponding to identified topics extracted from the audio/video stream, where the topics correspond to predetermined topic taxonomies (see column 11, lines 50 - 51).

8. Claims 4, 7, 8, 10, 13, 14, 20 - 22, 25, 26 – 30 and 32 are rejected under 35 U.S.C. 103(a) as being unpatentable over Kupiec in view of Bogrett and further in view of U.S. Patent 5,835,667 issued to Howard D. Wactlar et al (hereinafter "Wactlar").

Regarding claim 4, Kupiec and Bogrett do not explicitly teach the database queries are automatically generated based on information corresponding to a list that identifies topics in text that is automatically extracted from the information stream, where the topics correspond to predetermined topic taxonomies.

Wactlar teaches the database queries are automatically generated based on information corresponding to a list that identifies topics in text that is automatically extracted from the information stream, where the topics correspond to predetermined topic taxonomies (see column 15, lines 2 - 6).

It would have been obvious to one of ordinary skill in the art at the time the invention was made to combine teaching of Wactlar with the teaching of Kupiec and Bogrett wherein text are extracted sequences. The motivation is that these texts are used in searching desired audio/video.

Regarding claim 7, Wactlar teaches the step of automatically extracting text from the information stream comprises a step of operating a voice recognition system (see column 6, lines 57 - 58)

Regarding claim 8, Wactlar teaches the step of automatically extracting text from the information stream comprises a step of extracting closed caption text (see column 7, lines 58 – 62).

Regarding claim 10, Wactlar teaches the step of automatically extracting text from the information stream comprises a step of also generating text that is descriptive of a number of human faces that are present in an image conveyed by the information stream (see Figs. A-1 and A-2).

Regarding claim 13, Kupiec the step of extracting comprises a step of ranking the extracted information based on a plurality of criteria, and where the step of multiplexing uses the ranked data (see column 12, lines 9 - 22).

Regarding claim 14, Kupiec teaches the step of extracting comprises a step of ranking extracted document information based on a score derived from a free text search of a document database using the text, on a number of named entities extracted from the text that are found in the documents, and on a taxonomy path score, where the taxonomy path score represents an amount of relatedness between a taxonomy-related

information element identified in the text and a predetermined taxonomy tree (see column 12, lines 1 – 6).

Regarding claim 20, Wactler teaches examining subsystem comprises at least one unit for automatically extracting text from the information stream, a unit for segmenting the text into sentences and at least one unit for operating on the sentences to identify topics that correspond to predetermined topic taxonomies, wherein said query generation subsystem automatically generates database queries based at least in part on identified topics (see column 12, lines 57 - 58).

Regarding claim 21, Kupiec teaches text extracting unit comprises at least one of a voice recognition system, a system for extracting closed caption text, and a character recognition system (see column 24, lines 32 – 35).

Regarding claim 22, Wactler teaches examining subsystem comprises a unit for generating text that is descriptive of a number of human faces that are present in an image conveyed by the information stream (see Figs.A-1 and A-2).

Regarding claim 25, Wactlar teaches wherein further comprising a step of inserting the collateral information into the audio/video stream in real time or substantially real time (see column 6, lines 36 – 38).

Regarding claim 26, Wactler teaches examining includes a step of generating a speech transcript from at least the audio portion of the audio/visual stream, and wherein recognized events comprise speech topics (see column 6, lines 41 - 48).

Regarding claim 27, Wactlar teaches the audio/video stream originates as a television broadcast signal (see column 1, lines 25 – 33).

Regarding claim 28, Wactler teaches the audio/video stream originates at a meeting, and further comprising a step of presenting the collateral information to meeting participants in real time or substantially real time (see column 1, lines 14 – 18 and 30 - 33).

Regarding claim 29, Wactler teaches the step of presenting comprises a step of inserting the collateral information into the audio/video stream, and displaying the audio/video stream to the meeting participants (see Fig.4 step 42).

Regarding claim 30, Wactler a step of archiving at least the collateral information (see column 6, lines 46 - 50).

Regarding claim 32, Wactlar the step of examining includes steps of generating a speech transcript comprised of words from at least the audio portion of the audio/video stream; segmenting the words into sentences; and operating on the sentences to

identify topics that correspond to predetermined topic taxonomies, wherein the step of generating database queries operates on identified topics (see column 2, lines 44 – 53).

9. Claims 12, 15, 16 and 17 are rejected under 35 U.S.C. 103(a) as being unpatentable over Wactler in view of Bogrett.

Regarding claim 12, Wactler teaches a method for providing collateral information for multiplexing with an information stream, comprising steps of:

converting the information stream into text (see column 6, lines 46 – 50);

analyzing the text to identify information elements (see column 9, lines 42 – 47);

extracting data from database search results that is relevant to the information stream (see column 15, lines 2 – 6);

and multiplexing the data into the information stream for presentation at a destination of the information stream (see column 15, lines 20 – 26).

Wactler does not explicitly teach automatically generating queries from the information elements for searching at least one database.

Bogrett teaches teach automatically generating queries from the information elements for searching at least one database (see column 11, lines 50 - 51);

It would have been obvious to one of ordinary skill in the art at the time the invention was made to combine teaching of Bogrett with teaching of Wactlar wherein the queries are used in selecting desire audio/video stream. The motivation is that automatically generating these data base query saves time.

Regarding claim 15, Wactlar teaches the queries are generated based on information elements that correspond to a list of information elements identifying topics in the text being analyzed, where the topics correspond to predetermined topic taxonomies (see column 6, line 67 and column 14, lines 46 - 57).

Regarding claim 16, Wactlar teaches the step of analyzing the text comprises steps of segmenting the text into sentences and a step of operating on the sentences to identify topics that correspond to predetermined topic taxonomies, and wherein the step of automatically generating queries operates on identified topics (see column 12, lines 57 - 58).

Regarding claim 17, Wactlar teaches the step of analyzing the text comprises steps of at least segmenting the text into sentences, identifying names of entities within the text, and a step of operating on the sentences to identify topics that correspond to predetermined topic taxonomies, and wherein the step of automatically generating queries operates on identified topics and ranks the database search results based at least on numbers of named entities found and on an amount of relatedness between a taxonomy-related information element identified in the text and a predetermined taxonomy tree (see column 9, lines 41 - 56).

Conclusion

10. Applicant's amendment necessitated the new ground(s) of rejection presented in this Office action. Accordingly, **THIS ACTION IS MADE FINAL**. See MPEP § 706.07(a). Applicant is reminded of the extension of time policy as set forth in 37 CFR 1.136(a).

A shortened statutory period for reply to this final action is set to expire **THREE MONTHS** from the mailing date of this action. In the event a first reply is filed within **TWO MONTHS** of the mailing date of this final action and the advisory action is not mailed until after the end of the **THREE-MONTH** shortened statutory period, then the shortened statutory period will expire on the date the advisory action is mailed, and any extension fee pursuant to 37 CFR 1.136(a) will be calculated from the mailing date of the advisory action. In no event, however, will the statutory period for reply expire later than **SIX MONTHS** from the date of this final action.

Any inquiry concerning this communication or earlier communications from the examiner should be directed to Fred I. Ehichioya whose telephone number is 703-305-8039. The examiner can normally be reached on M - F 8:00 AM to 4:30 PM.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Kim Y. Vu can be reached on 703-305-4393. The fax phone numbers for the organization where this application or proceeding is assigned are 703-746-7239 for regular communications and 703-746-7238 for After Final communications.

Any inquiry of a general nature or relating to the status of this application or proceeding should be directed to the receptionist whose telephone number is 703-303-3900.

Fred Ehichioya
Patent Examiner
October 20, 2003



SHAHID ALAM
PRIMARY EXAMINER